SERVICE MANUAL

FOR

CONCORD®

-CA100.2-
-CA200.2-
-CA30.4-

Stereo Power Amplifier

CONCORD SYSTEMS, INC.
25 Hale Street
Newburyport, MA 01950

PARTS LIST - CA100.2

Reference No.	Part No.	Description	Qty.
U1	26-0175	IC, DUAL OP AMP, LM833	1
U151	26-0176	IC, SW. REG., TL494CN	1
Q10, 12, 60, 62	20-0341	TRANSISTOR, PWR, TIP36B	4
Q9, 11, 59, 61	20-0316	TRANSISTOR, PWR, TIP35B	4
Q8, 58	20-0317	TRANSISTOR, PWR, TIP32C	2
Q7, 57	20-0318	TRANSISTOR, PWR, TIP31C	2
Q159, 160, 161, 162, 163, 164, 165, 166	20-319	TRANSISTOR, PWR, SGSP 3055A	8
Q3, 53, 102	20-0320	TRANSISTOR, SIGNAL, HV, MPSA93	3
Q101, 126	20-0321	TRANSISTOR, SIGNAL, HV, MPSA43	2
Q15, 65	20-0322	TRANSISTOR, SIGNAL, DAR, MPSA25	2
Q6, 56	20-0323	TRANSISTOR, POWR, MJE182	2
Q4, 54	20-0324	TRANSISTOR, PWR, MJE172	2
Q1, 2, 51, 52	20-0325	TRANSISTOR, SIGNAL, 2N5210	4
Q151, 152, 155, 156	20-0326	TRANSISTOR, SIGNAL, 2N4403	4
Q5, 55, 153	20-0327	TRANSISTOR, SIGNAL, 2N4401	3
ZD153, 154	20-0328	DIODE, ZENER, 47V, 1W, 1N4756	2
ZD151, 155, 156	20-0329	DIODE, ZENER, 15V, 1/4W, IN965A	3
ZD152	20-0330	DIODE, ZENER, 8V, 2W, 1N756B	1
D158, 159, 160, 161	20-0331	DIODE, PWR, UF, MUR410	4
D5, 6, 55, 56	20-0332	DIODE, PWR, FR103	4
D1, 2, 3, 51, 52, 53, 101, 102, 126, 127, 151, 157	20-0113	DIODE, SIGNAL, 1N4148	17

PARTS LIST - CA100.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
C6, 56	29-0036	CAPACITOR, ELECT, 220uF, 10V	2
C165, 166, 167, 168	29-0150	CAPACITOR, ELECT, 2200uF, 35V	4
C158, 159, 160, 161	29-0164	CAPACITOR, ELECT, 1000uF, 35V	4
C5, 13, 15, 55 63, 65	29-0165	CAPACITOR, ELECT, 100uF, 35V	6
C153, 155	29-0004	CAPACITOR, ELECT, 100uF, 16V	2
C14, 16, 64, 66	29-0166	CAPACITOR, ELECT, 47uF, 35V	4
C5, 53	29-0020	CAPACITOR, ELECT, 47uF, 10V	2
C170, 171	29-0135	CAPACITOR, ELECT, 22uF, 16V	2
C2, 10, 11, 17, 52, 60, 61, 67, 151, 156, 157, 162, 163, 164, 169	29-0156	CAPACITOR, MYLAR, .1uF, 100V	15
C12, C62	29-0157	CAPACITOR, MYLAR, 68nF, 100V	2
C101, 102, 103, 126, 152, 154	29-0158	CAPACITOR, MYLAR, 10nF, 100V	6
C1, 51	29-0160	CAPACITOR, MYLAR, 1nF, 100V	2
C7, 8, 57, 58	29-0167	CAPACITOR, NPO/COG MONO, 220pF, 50V	4
C9, 59	29-0163	CAPACITOR, NPO/COG MONO, 47pF, 50V	2
C172, 173	29-0161	CAPACITOR, NPO/COG MONO, 330pF, 50V	2
VR2, 52	30-0096	POT, TRIMMER, PT10V - 5K	2
VR1, 51	30-0097	POT, CONTROL, DUAL, PC16-50K	1
R28, 78	30-0099	RESISTOR, MF, 1 OHM, 1W, 5%	2

PARTS LIST - CA100.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
R1, 4, 51, 54, 103, 104, 128, 129, 153, 156, 157, 158, 160, 170, 171, 186		RESISTOR, CF, 1K OHM, 1/4W, 5%	16
R3, 7, 10, 11, 53, 57, 60, 61		RESISTOR, CF, 680 OHM, 1/4W, 5%	8
R12, 62		RESISTOR, CF, 470 OHM, 1/4W, 5%	2
R6, 56		RESISTOR, CF, 220 OHM, 1/4W, 5%	2
R29, 79		RESISTOR, CF, 100 OHM, 1/4W, 5%	2
R13, 14, 63, 64, 174, 175, 176, 177, 178, 179, 180, 181		RESISTOR, CF, 47 OHM, 1/4W, 5%	12
R154		RESISTOR, 10 OHM, 1/4W, 5%	1
TH151	26-0178	THERMISTOR, 80 C, S200-0159	1
J1	65-0219	JACK, STEREO, RCA, H700-0165	1
FB151		FERRITE BEAD, 1400-0155	1
FB1, 2, 51, 52		FERRITE BEAD, 1400-0150	4
SW1	18-0146	SWITCH, BRIDGING, DPDT	1
L151, 152	24-0176	INDUCTOR, TORROID, 1150-0425	2
L1, 51	24-0177	INDUCTOR, AIR CORE, 3.3uH	2
T151	24-0180	TRANSFORMER, POWER, A500-0100	1
HJ1, 2, 51, 52		HEAT SINK, H700-0350	4
L2, 3, 52, 53	24-0178	INDUCTOR, AXIAL, 470uH	4
W196	WG-CA10	WIRE, STRANDED, 10 GAUGE, BLK., 12"	1
W197	WP-CA10	WIRE, STRANDED, 10 GAUGE, BLK., 12"	1

PARTS LIST - CA100.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
R21, 22, 23, 24, 71, 72, 73, 74	30-0100	RESISTOR, MF, 0.2 OHM, 1W, 5%	8
R167, 182		RESISTOR, CF, 100 OHM, 1/2W, 5%	2
R27, 77		RESISTOR, CF, 15 OHM, 1/2W, 5%	2
R183, 184		RESISTOR, CF, 1.5K OHM, 1/2W, 5%	2
R19, 20, 69,70		RESISTOR, CF, 1 OHM, 1/2W, 5%	4
R8, 58		RESISTOR, CF, 910 OHM, 1/2W, 5%	2
R82		RESISTOR, CF, 13K OHM, 1/4W, 5%	1
R9, 59		RESISTOR, CF, 20K OHM, 1/4W, 5%	2
R168		RESISTOR, CF, 100K OHM, 1/4W, 5%	1
R185		RESISTOR, CF, 62K OHM, 1/4W, 5%	1
R16, 17, 31, 66, 67, 81, 164		RESISTOR, CF, 47K OHM, 1/4W, 5%	7
R151		RESISTOR, CF, 36K OHM, 1/4W, 5%	1
R155		RESISTOR, CF, 27K OHM, 1/4W, 5%	1
R152		RESISTOR, CF, 24K OHM, 1/4W. 5%	1
R5, 30, 32, 55, 80, 105, 106, 107, 130, 159, 162, 163, 165, 169		RESISTOR, CF, 10K OHM, 1/4W, 5%	14
R101, 102, 126, 127		RESISTOR, CF, 8.2K OHM, 1/4W, 5%	4
R166		RESISTOR, CF, 2.2K OHM, 1/4W, 5%	1

PARTS LIST - CA200.2

Reference No.	Part No.	Description	Qty.
U1	26-0175	IC, DUAL OP AMP, LM833	1
U151	26-0176	IC, SW. REG, TL494CN	1
Q10, 12, 14, 60, 62, 64	20-0334	TRANSISTOR, PWR, TIP36C	6
Q9, 11, 13, 59, 61, 63	20-0335	TRANSISTOR, PWR, TIP35C	6
Q8, 58	20-0317	TRANSISTOR, PWR, TIP32C	2
Q7, 57, 154	20-0318	TRANSISTOR, PWR, TIP31C	3
Q159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174	20-0319	TRANSISTOR, PWR, SGSP3055A	16
Q3, 53, 102	20-0320	TRANSISTOR, SIGNAL, HV, MPSA93	3
Q101, 126	20-0321	TRANSISTOR, SIGNAL, HV, MPSA43	2
Q15, 65	20-0322	TRANSISTOR, SIGNAL, DAR, MPSA25	2
Q6, 56	20-0336	TRANSISTOR, PWR, MJE340	2
Q4, 54	20-0337	TRANSISTOR, PWR, MJE350	2
Q1, 2, 51, 52	20-0325	TRANSISTOR, SIGNAL, 2N5210	4
Q151, 152, 155, 156	20-0326	TRANSISTOR, SIGNAL, 2N4403	4
Q5, 55, 153	20-0327	TRANSISTOR, SIGNAL, 2N4401	3
ZD153, 154	20-0338	DIODE, ZENER, 39V, 1N975A	2
ZD151	20-0329	DIODE, ZENER, 15V, 1N965A	1
ZD152	20-0339	DIODE, ZENER, 10V, 1N758B	1
D158, 159, 160, 161	20-0340	DIODE, PWR, UF, MUR415	4

PARTS LIST - CA100.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
DS151	65-0224	LED, RED, 1/8" DIA	1
SJ1	65-0225	SPEAKER JACK, 4p	1
GR1	65-0223	GROMMET, STRAIN RELIEF	1
BB1	65-0222	BUTTON, BRIDGING SWITCH	1

PARTS LIST - CA200.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
D5, 6, 55, 56	20-0332	DIODE, PWR, FR103	4
D1, 2, 3, 51, 52, 53, 101, 102 126, 127, 151, 152, 153, 154, 155, 156, 157, 162, 163	20-0113	DIODE, SIGNAL, 1N4148	19
C158, 159, 160, 161, 165, 166, 167, 168	29-0153	CAPACITOR, ELECT, 2200uF, 50V	8
C6, C56	29-0036	CAPACITOR, ELECT, 220uF, 10V	2
C5, 13, 15, 55, 63, 65	29-0154	CAPACITOR, ELECT, 100uF, 50V	6
C153, 155	29-0004	CAPACITOR, ELECT, 100 uF, 16V	2
C14, 16, 64, 66	29-0156	CAPACITOR, ELECT, 47uF, 50V	4
C3, 52	29-0020	CAPACITOR, ELECT, 47uF, 10V	2
C170, 171	29-0135	CAPACITOR, ELECT, 22uF, 16V	2
C2, 10, 11, 17, 53, 60, 61, 67, 151, 156, 157, 162, 163, 164, 169	29-0170	CAPACITOR, MYLAR, 1uF, 100V	15
C12, C62	29-0157	CAPACITOR, MYLAR, 68nF, 100V	2
C101, 102, 126, 152, 174	29-0158	CAPACITOR, MYLAR, 10nF, 100V	5
C154	29-0159	CAPACITOR, MYLAR, 6.8nF, 100V	1
C1, 51	29-0160	CAPACITOR, MYLAR, 1nF, 100V	1
C172, 173	29-0161	CAPACITOR, NPO/COG, MONO, 330pF, 50V	2

PARTS LIST - CA200.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
C7, 8, 57, 58	29-0162	CAPACITOR, NPO/COG, MONO, 220pF, 100V	4
C9, 59	29-0163	CAPACITOR, NPO/COG, MONO, 47/50pF, 50V	2
VR2, 52	30-0101	POT, TRIMMER, PT10V-5K	2
VR1, 51	30-0097	POT, CONTROL, DUAL, PC16-50K	2
R27, 77	30-0098	RESISTOR, MF, 15 OHM, 1W, 5%	2
R28, 78	30-0099	RESISTOR, MF, 1 OHM, 1W, 5%	2
R21, 22, 23, 24, 25, 26, 71, 72, 73, 74, 75, 76	30-0100	RESISTOR, MF, 0.2 OHM, 1W, 5%	12
R191, 192		RESISTOR, CF, 3.3K OHM, 1/2W, 5%	2
R167, 190		RESISTOR, CF, 100 OHM, 1/2W, 5%	2
R19, 20, 69, 70		RESISTOR, CF, 1 OHM, 1/2W, 5%	4
R168		RESISTOR, CF, 100K OHM, 1/4W, 5%	1
R193		RESISTOR, CF, 62K OHM, 1/4W, 5%	1
R16, 17, 31, 66, 67, 81, 151, 164		RESISTOR, CF, 47K OHM, 1/4W, 5%	8
R152		RESISTOR, CF, 33K OHM, 1/4W, 5%	1
R155		RESISTOR, CF, 27K OHM, 1/4W, 5%	1
R9, 59		RESISTOR, CF, 20K OHM, 1/4W, 5%	2
R5, 55, 82, 101, 102, 126, 127		RESISTOR, CF, 13K OHM, 1/4W, 5%	7
R30, 32, 80, 105, 106, 107, 130, 159, 162, 163, 165, 169		RESISTOR, CF, 10K OHM, 1/4W, 5%	12

PARTS LIST - CA200.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
L1, 51	24-0177	INDUCTOR, AIR CORE, 3.3uH	2
L2, 3, 52, 53	24-0178	INDUCTOR, AXIAL, 470uH	4
T151	24-0179	TRANSFORMER, PWR, A500-0200	1
HS3, 4, 53, 54		HEAT SINK, H700-0355	4
HS1, 2, 51, 52		HEAT SINK, H700-0350	4
BP1, 51	65-0220	BINDING POST, OUTPUT	2
BS1	65-0221	BARRIER STRIP	1
BB1	65-0222	BUTTON, BRIDGING SWITCH	1
DS151	65-0224	LED, RED, 1/8"	1

PARTS LIST - CA200.2 (CONTINUED)

Reference No.	Part No.	Description	Qty.
R195		RESISTOR, CF, 3.3K OHM, 1/4W, 5%	1
R166		RESISTOR, CF, 2.2K OHM, 1/4W, 5%	1
R1, 4, 12, 51, 54, 62, 103, 104, 128,-129, 153, 156, 157, 158, 160, 170, 171, 194		RESISTOR, CF, 1K OHM, 1/4W, 5%	18
R8, 58		RESISTOR, CF, 910 OHM, 1/4W, 5%	2
R3, 7, 10, 11, 53 57, 60, 61		RESISTOR, CF, 680 OHM, 1/4W, 5%	8
R6, 56		RESISTOR, CF, 220 OHM, 1/4W, 5%	2
R29, 79		RESISTOR, CF, 120 OHM, 1/4W, 5%	2
R13, 14, 63, 64, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189		RESISTOR, CF, 47 OHM, 1/4W, 5%	20
R154		RESISTOR, CF, 10 OHM, 1/4W, 5%	1
FA151	65-0218	FAN	1
TH152	26-0177	THERMISTOR 40 C	1
TH151	26-0178	THERMISTOR 80 C	1
J1, 51	65-0219	JACK, STEREO, RCA, H700-0165	1
FB151		FERRITE BEAD, 1400-0155	1
FB1, 2, 51, 52		FERRITE BEAD, 1400-0150	4
SW1	18-0146	SWITCH, BRIDGING, DPDT	1
L151, 152	24-0176	INDUCTOR, TORROID, I150-0425	2

PARTS LIST - CA30.4

Reference No.	Part No.	Description	Qty.
U1, 51	26-0181	I.C., OUTPUT CONTROL, TDA, 7250	2
U101	26-0176	I.C., SW REG, TL494CN	1
U2	26-0182	I.C., PRE-AMP, LF347N	1
Q1, 3, 51, 53	20-0342	TRANSISTOR, PWR, TIP141	4
Q2, 4, 52, 54	20-0343	TRANSISTOR, PWR, TIP146/147	4
Q107, 108	20-0326	TRANSISTOR, SIGNAL, 2N4403	2
Q101, 102, 103, 103A, 104, 105, 106, 106A	20-0319	TRANSISTOR, PWR, SEFP3055A	8
VR101	20-0329	DIODE, ZENER, 15V, 1/4W, IN965B	1
VR102	20-0344	DIODE, ZENER, 9V, 1W, IN757A	1
VR103, 104	20-0338	DIODE, ZENER, 39V, 1/4W, IN975B	2
CR101, 103, 104, 105, 106	20-0113	DIODE, SIGNAL, IN4148	5
CR102	20-0332	DIODE, PWR, FR103	1
CR107, 108, 109 110	20-0345	DIODE, PWR, RECTIFIER, VHE620	4
C114, 115	29-0150	CAPACITOR, ELECT, 2200uF, 35V	2
C109, 110, 111, 112	29-0164	CAPACITOR, ELECT, 1000uF, 35V	4
C7, 29, 30, 57, 64, 79, 80, 104 105, 14	29-0036	CAPACITOR, ELECT, 220uF, 10V	10
C117	29-0156	CAPACITOR, MYLAR, 0.1uF, 100V	1
C16, 22, 28, 66	29-0135	CAPACITOR, ELECT, 22uF, 16V	4

PARTS LIST - CA30.4 (CONTINUED)

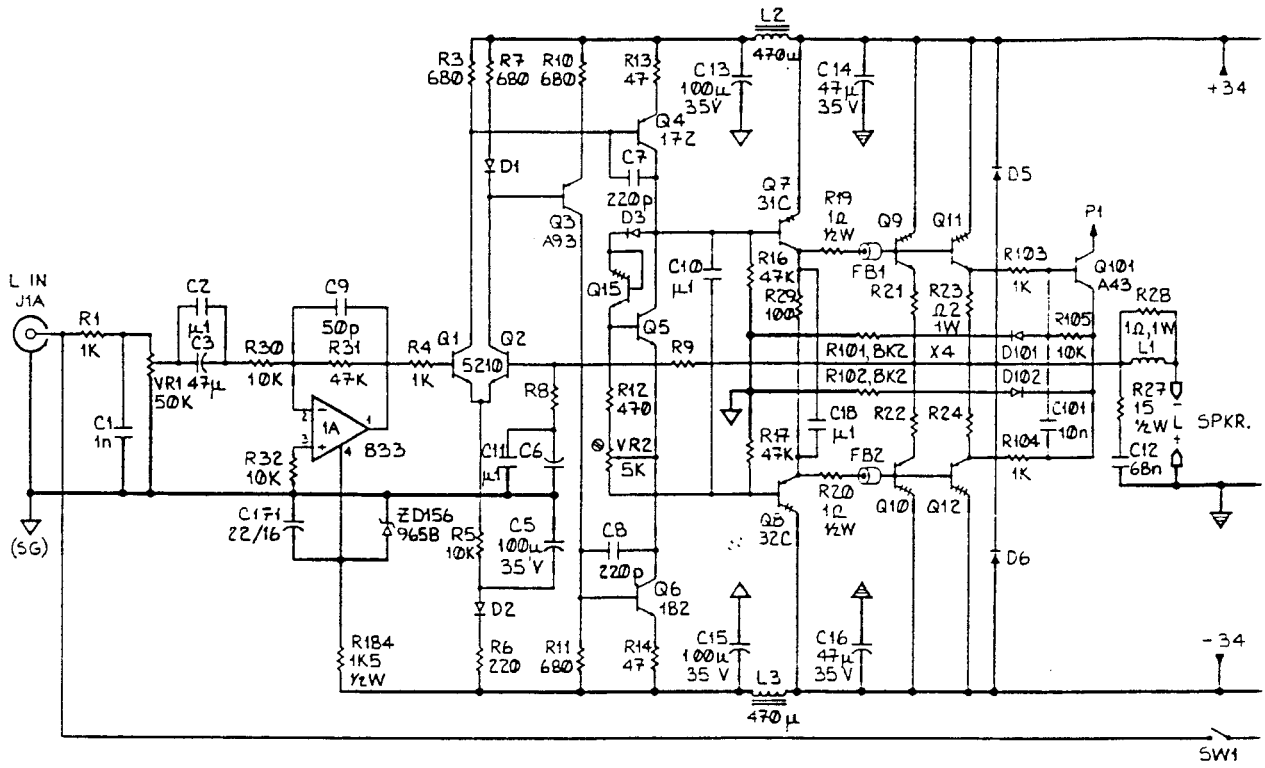
Reference No.	Part No.	Description	Qty.
C18, 21, 68, 71, 101, 103, 113, 116	29-0156	CAPACITOR, MYLAR, 0.1uF, 100V	8
C102, 106	29-0158	CAPACITOR, MYLAR, 10nF, 100V	2
C1, 2, 9, 10, 17, 20, 35, 36, 51, 52, 59, 60, 67, 70, 85, 86	29-0160	CAPACITOR, MYLAR, 1nF, 100V	16
C19, 69	29-0083	CAPACITOR, ELECT, 2.2uF, 50V	2
C3, 4, 11, 27, 53, 54, 61, 77	29-0018	CAPACITOR, ELECT, 4.7uF, 35V	8
C26, 23, 76, 73	29-0166	CAPACITOR, ELECT, 47uF, 35V	4
C37, 38, 87, 88, 107, 108	29-0161	CAPACITOR, NPO/COG, MONO, 330pF, 50V	6
C5, 6, 12, 13, 55, 56, 62, 63	29-0180	CAPACITOR, NPO/COG, MONO, 180pF, 50V	8
C39, 40, 89, 90	29-0181	CAPACITOR, NPO/COG, MONO, 33pF, 50V	4
C33, 34, 83, 84	29-0183	CAPACITOR, NPO/COG, MONO, 22pF, 50V	4
VR40, 90	30-0097	POT, CONTROL, DUAL, 50K OHM	2
R120, 121, 122, 123		RESISTOR, CF, 910 OHM, 1/4W, 5%	4
R24, 26, 74, 76, 111, 112, 119		RESISTOR, CF, 1K OHM, 1/4W, 5%	7
R25, 27, 28, 31, 34, 39, 75, 77, 78, 81, 84, 89, 101, 102, 103, 106		RESISTOR, CF, 10K OHM, 1/4W, 5%	16

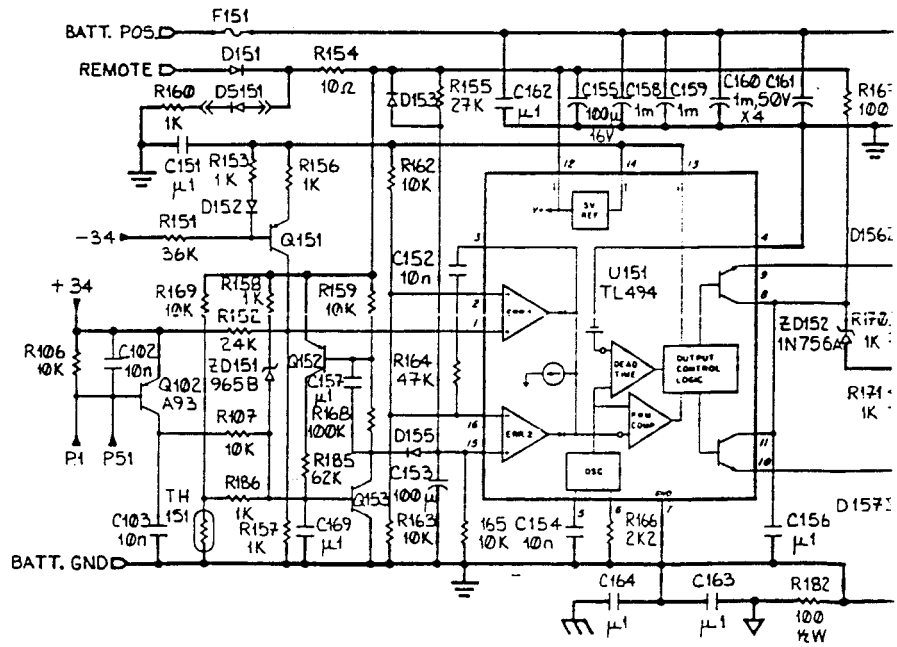
PARTS LIST - CA30.4

Reference No.	Part No.	Description	Qty.
R32, 33, 37, 38		RESISTOR, CF, 470 OHM, 1/4W, 5%	4
R29, 79		RESISTOR, CF, 24K OHM, 1/4W, 5%	2
R30, 80		RESISTOR, CF, 33K OHM, 1/4W, 5%	2
R21, 71		RESISTOR, CF, 22K OHM, 1/4W, 5%	2
R40, 41, 90, 91		RESISTOR, CF, 560 OHM, 1/4W, 5%	4
R23, 35, 73, 85, 108		RESISTOR, CF, 100K OHM, 1/4W, 5%	5
R109		RESISTOR, CF, 100 OHM, 1/4W, 5%	1
R1, 4, 12, 15, 51, 62, 54, 65, 105		RESISTOR, CF, 10 OHM, 1/4W, 5%	9
R2, 3, 13, 14, 53, 63, 64		RESISTOR, CF, 270 OHM, 1/4W, 5%	7
R5, 6, 16, 17, 56, 66, 67, 55	30-0100	RESISTOR, MF, 0.1 OHM, 2W, 1%	8
R7, 18, 57, 68		RESISTOR, CF, 47K OHM, 1/4W, 5%	4
R8, 19, 58, 69		RESISTOR, CF, 1.5K OHM, 1/4W, 5%	4
R10, 36, 60, 86	30-0099	RESISTOR, MF, 1 OHM, 1W, 5%	4
R104		RESISTOR, CF, 27K OHM, 1/4W, 5%	1
R107		RESISTOR, CF, 750 OHM, 1/4W, 5%	1
R110		RESISTOR, CF, 2.2K OHM, 1/4W, 5%	1
R113, 113A, 114, 114A, 115, 116, 117, 118		RESISTOR, CF, 47 OHM, 1/4W, 5%	8
RT101	26-0183	HEAT POSISTOR, 65'C	1
J1, 51	65-0219	JACK, STEREO, RCA, H700-0165	2

PARTS LIST - CA30.4 (CONTINUED)

Reference No.	Part No.	Description	Qty.
FB1		FERRITE BEAD, 1400-0155	1
SW1, 51	18-0146	SWITCH, BRIDGING, DPDT	2
L1, 2, 51, 52	24-0177	INDUCTOR, AIR CORE, 3.3uH	4
L101, 102	24-0176	INDUCTOR, TORROID, 30uH	2
DS101	65-0224	LED, RED, 1/8"	1
T1	24-0181	TRANSFORMER, POWER	1
SJ1, 2	65-0225	SPEAKER JACK, 4P	2
GR1	65-0223	GROMMET, STRAIN RELIEF	1
BB1	65-0222	BUTTON, BRIDGING SWITCH	2





4 = 2N 4401, TIP 35B, MPS A25; 2N 4403, TIP 36B, SEFP 3055A

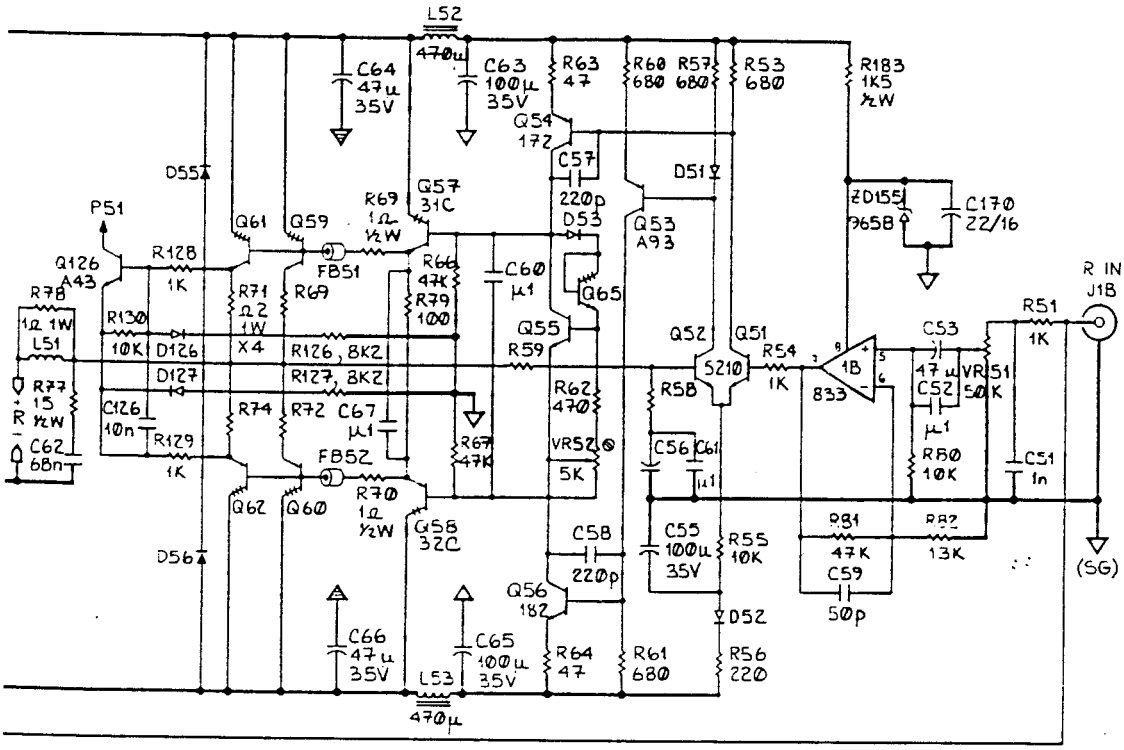
3 = CHASSIS GND; BATT. GND.; SIGNAL GND.; DIRT & SPKR.GND.

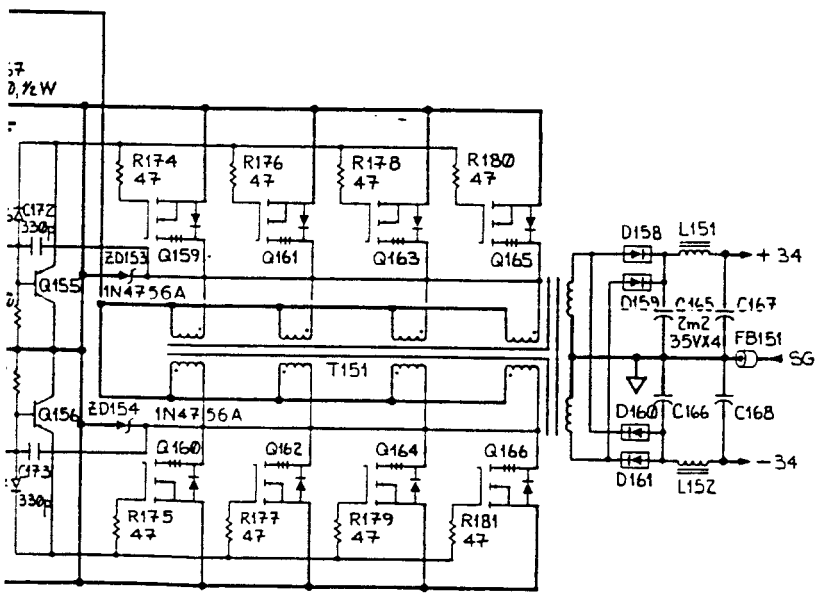
= MUR410/VHE620; = FR103; = IN4148

2 a. ALL RESISTANCE VALUES IN OHMS
b. ALL CAPACITANCE VALUES IN FARADS
c. ALL VALUES:
1. MULTIPLIER AT DECIMAL LOCATION, ie. 3.6K=3K6, .02μ=μ02
2. p=10^{-12}, n=10^{-9}, μ=10^{-6}, m=10^{-3}, K=10^{3}, M=10^{6}

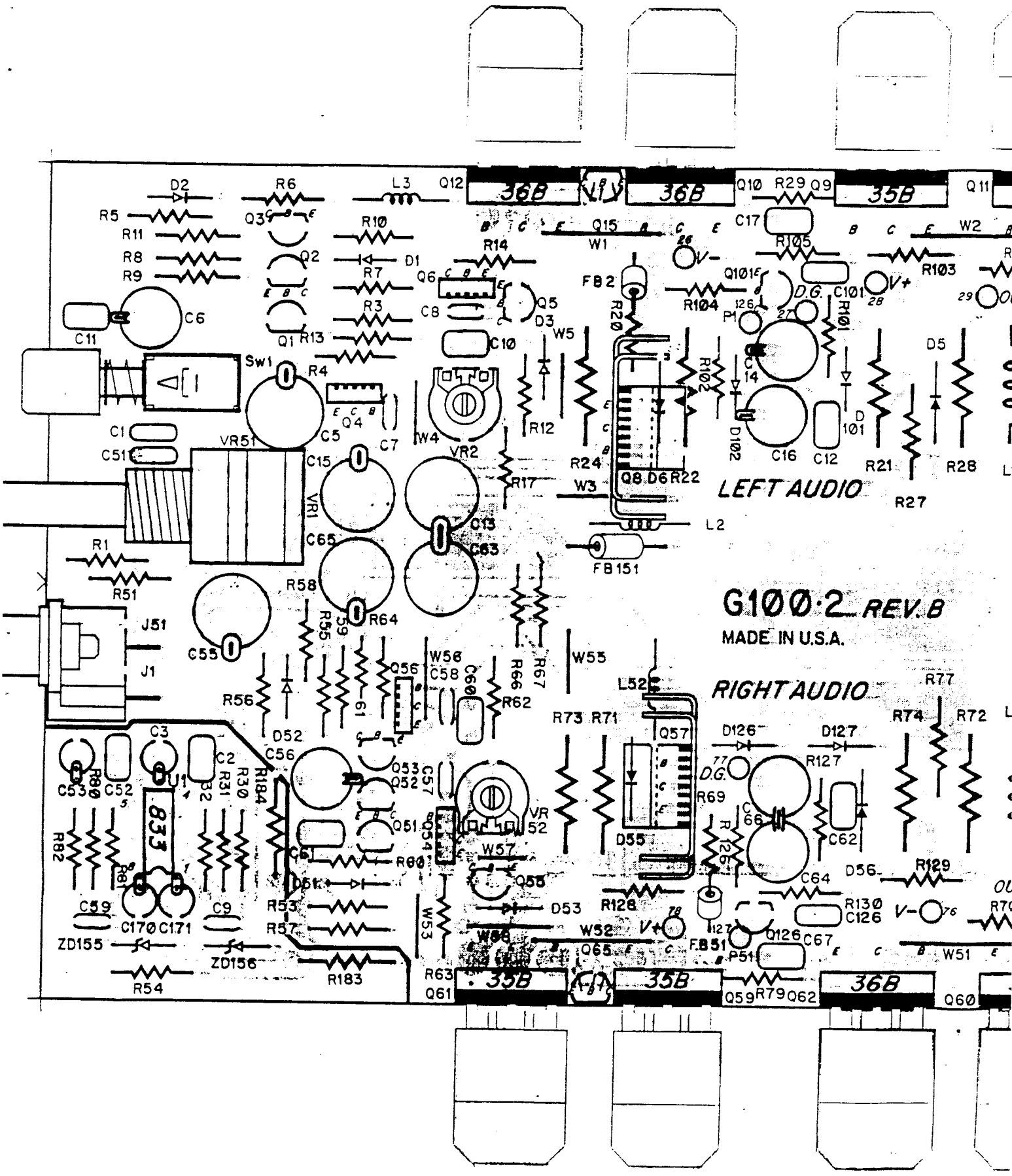
1 EQUIVALENT PARTS MAY BE USED.

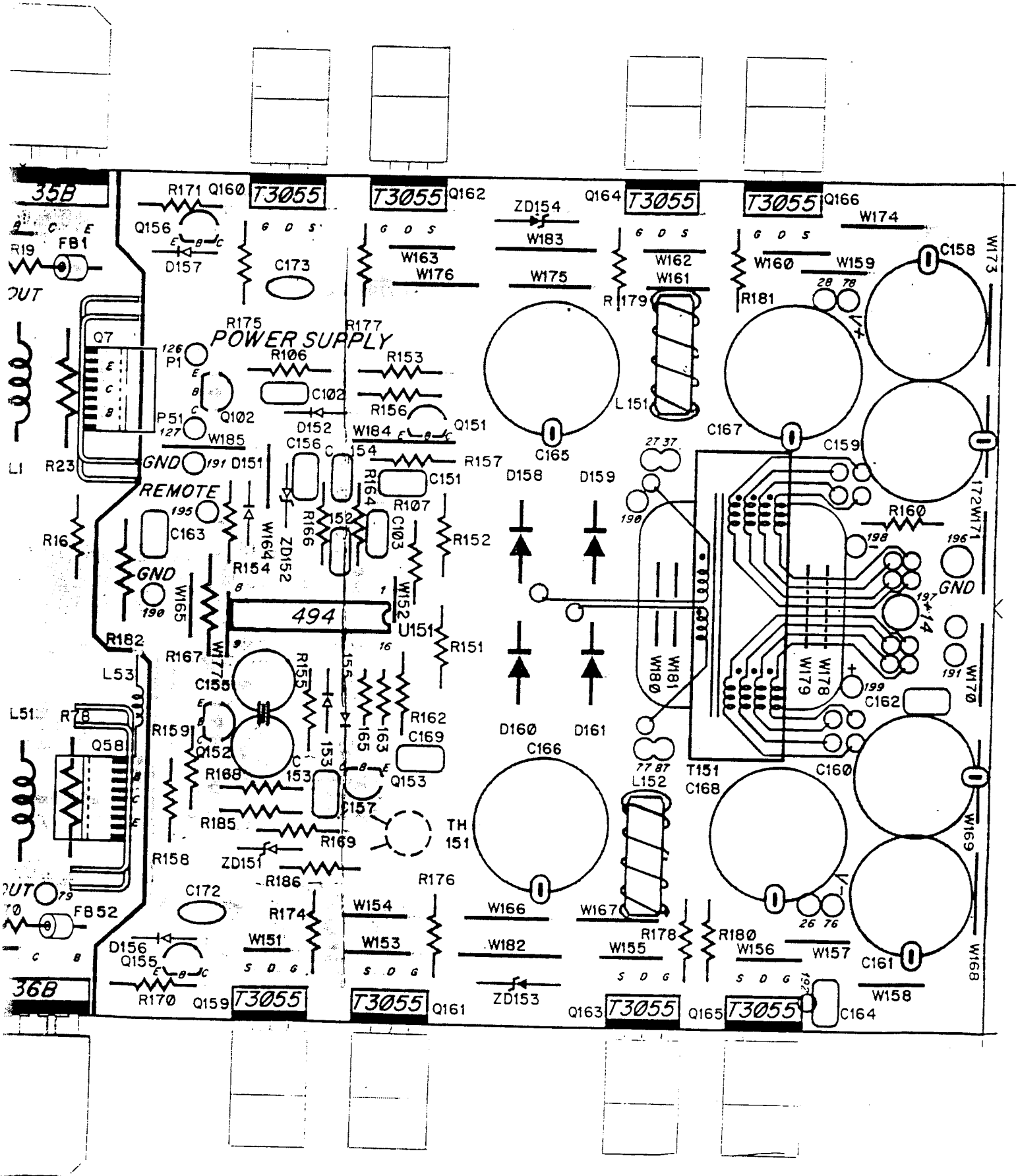
NOTES: UNLESS OTHERWISE SPECIFIED:



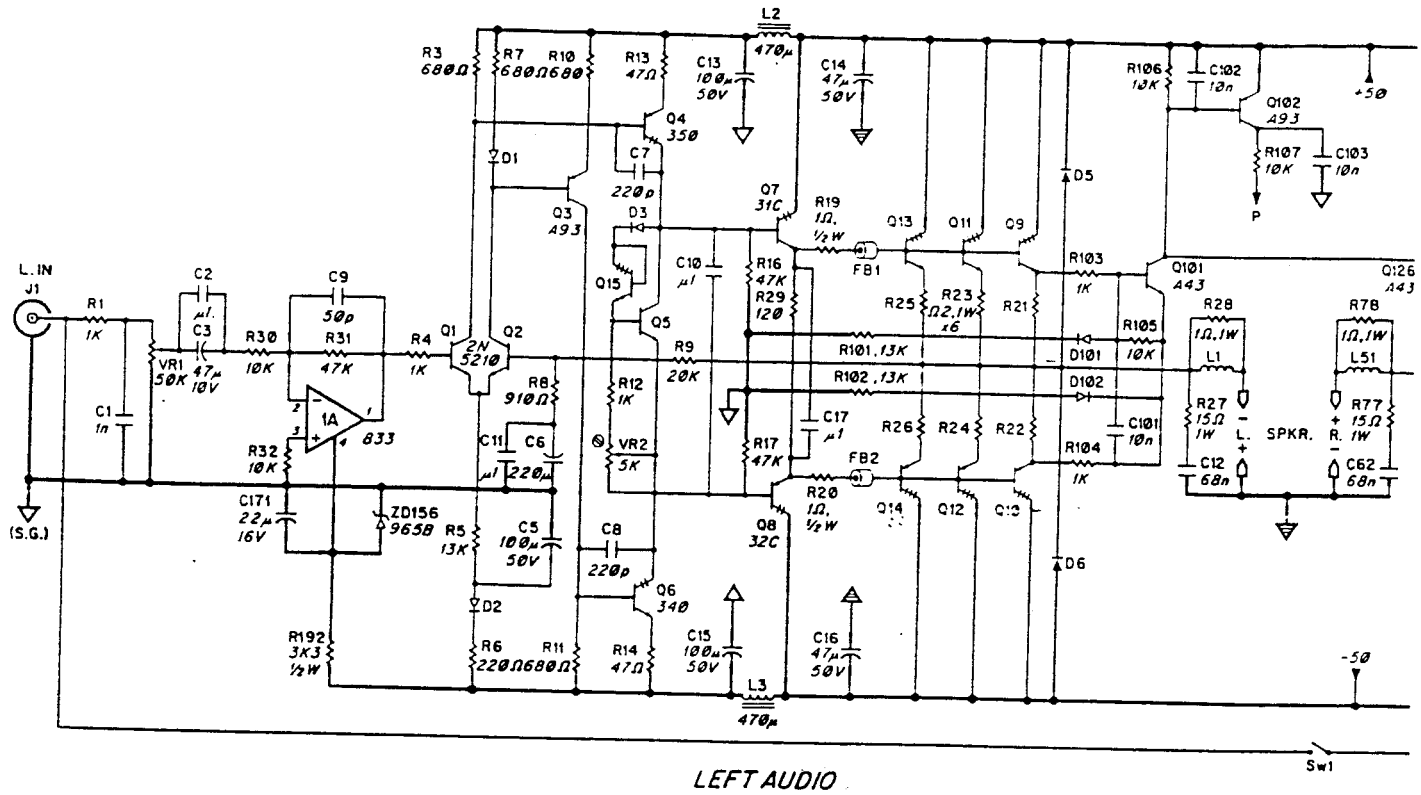


SCHEMATIC DIAG.
CA 100.2

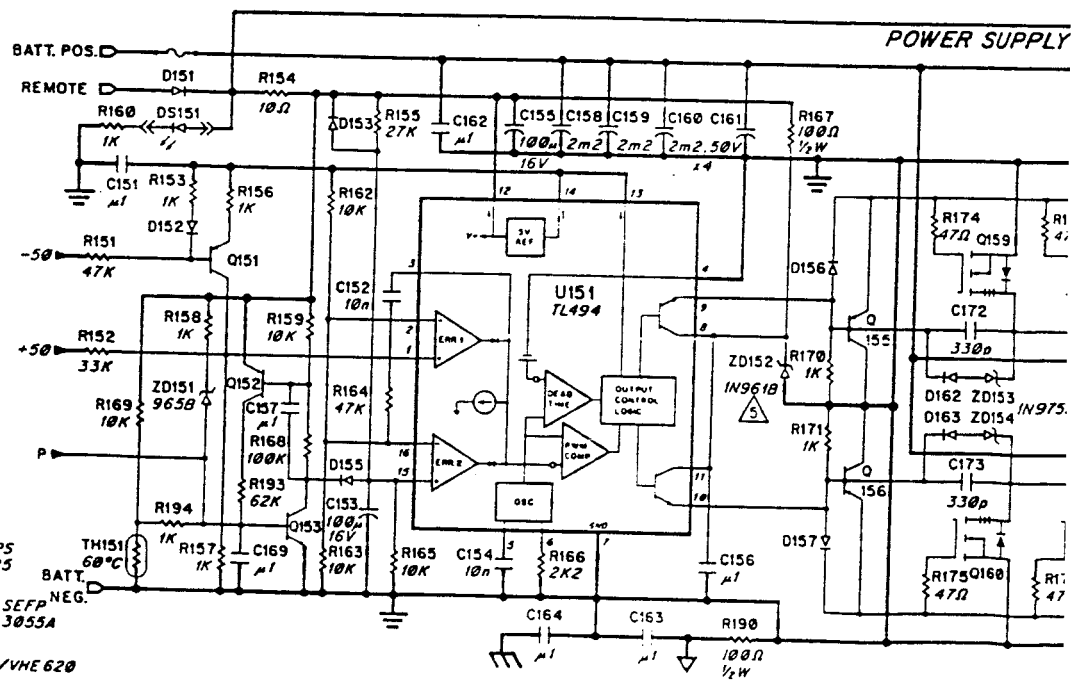

G100·2 REV.B
MADE IN U.S.A.
LEFT AUDIO
RIGHT AUDIO
36B
35B
833



PC BOARD LAYOUT
CA 100.2



LEFT AUDIO

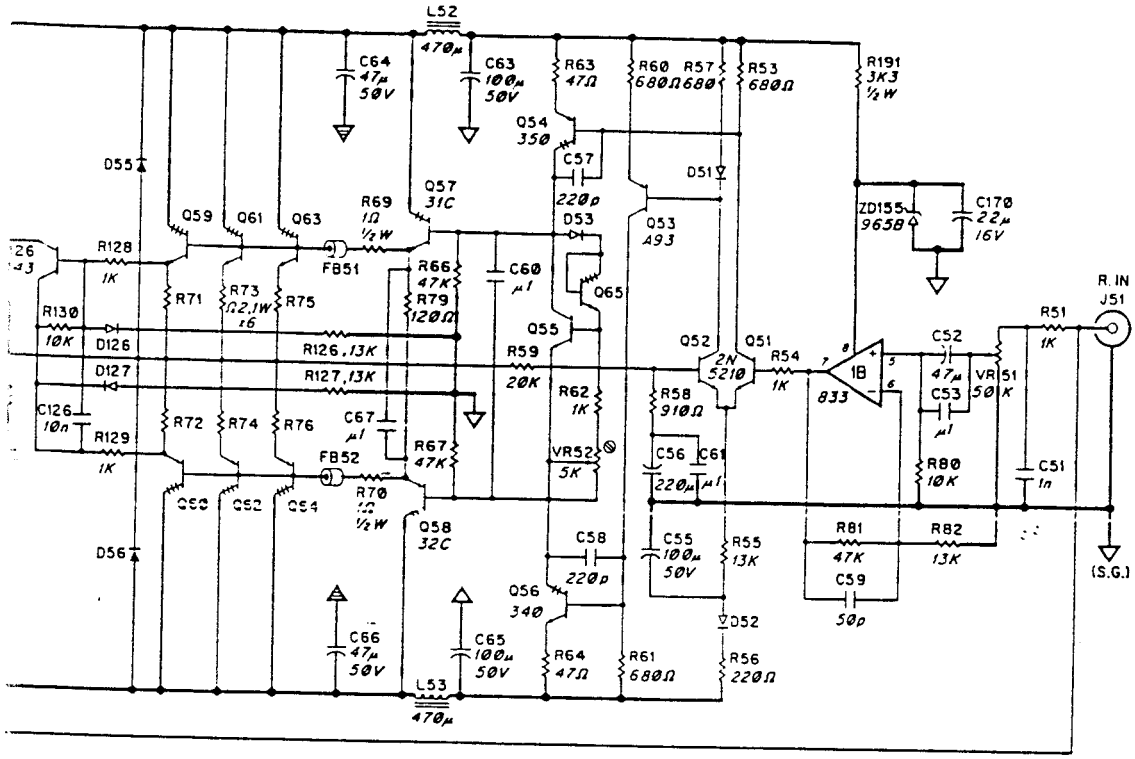


2 a. ALL RESISTANCE VALUES IN OHMS
b ALL CAPACITANCE VALUES IN FARADS
c ALL VALUES:
1 MULTIPLIER AT DECIMAL LOCATION, ie 3.6K=3K6, Ø2µ=µØ2
2 p=10⁻¹², n=10⁻⁹, µ=10⁻⁶, m=10⁻³, K=10³, M=10⁶

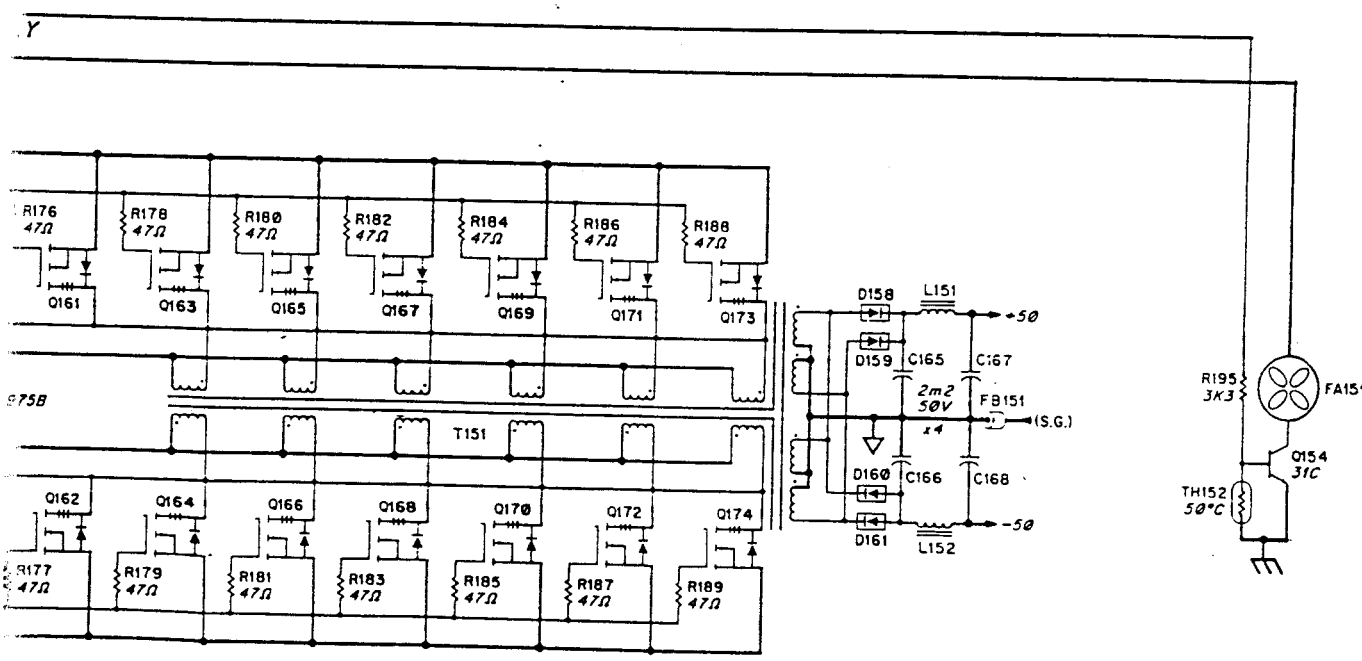
1 EQUIVALENT PARTS MAY BE USED.

NOTES: UNLESS OTHERWISE SPECIFIED

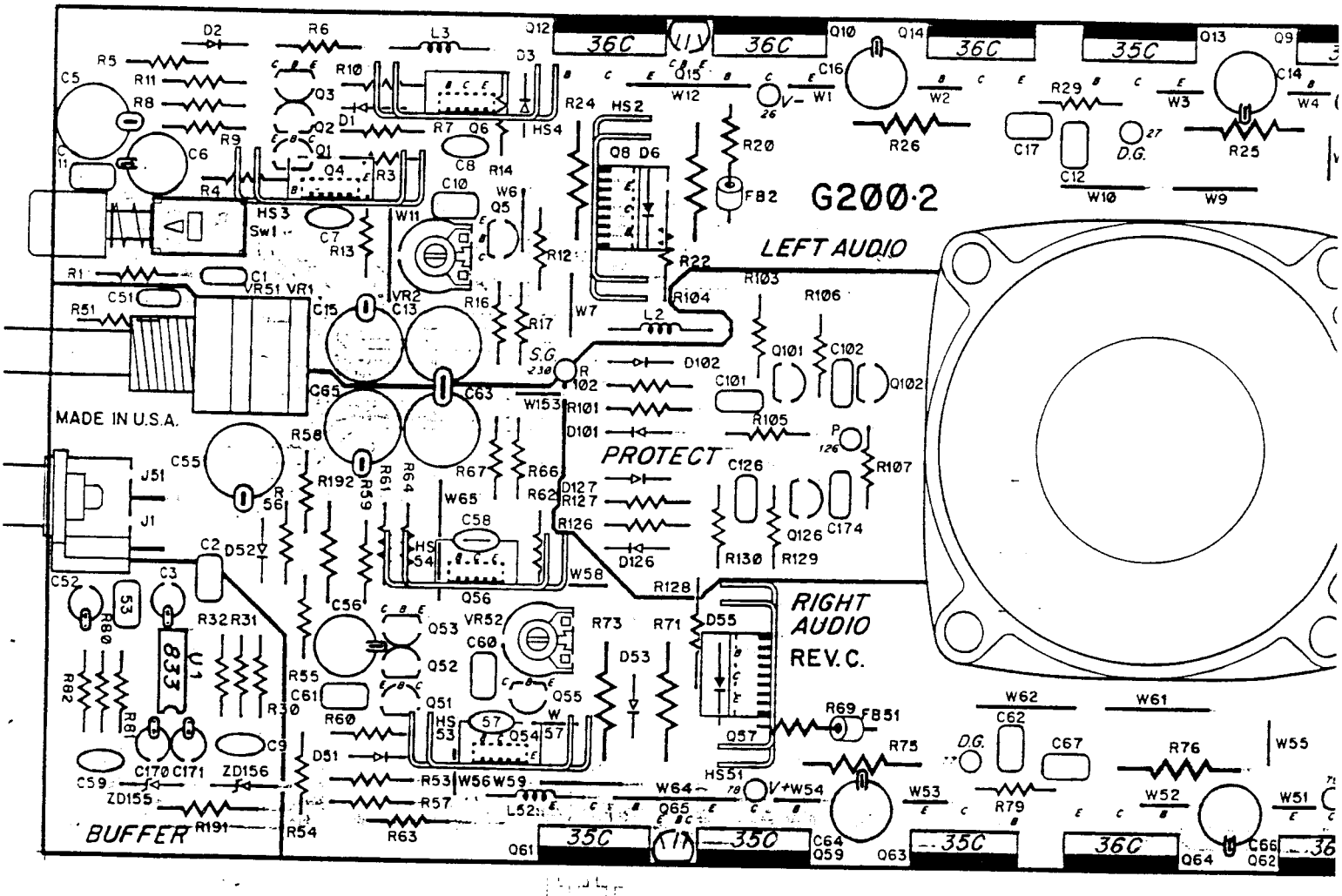
5. OPTIONAL (V_{GSTH} DEPENDENT)

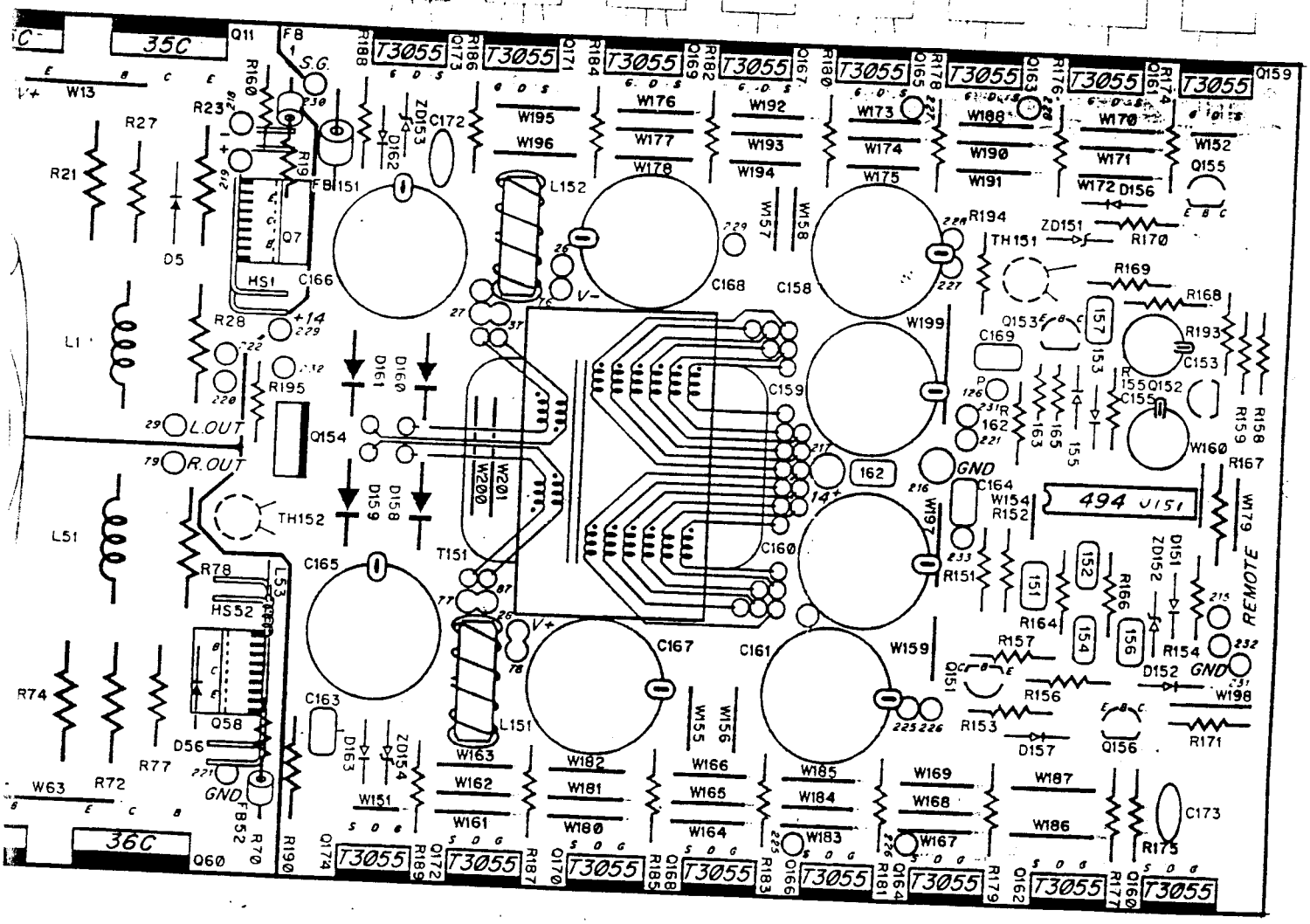


RIGHT AUDIO

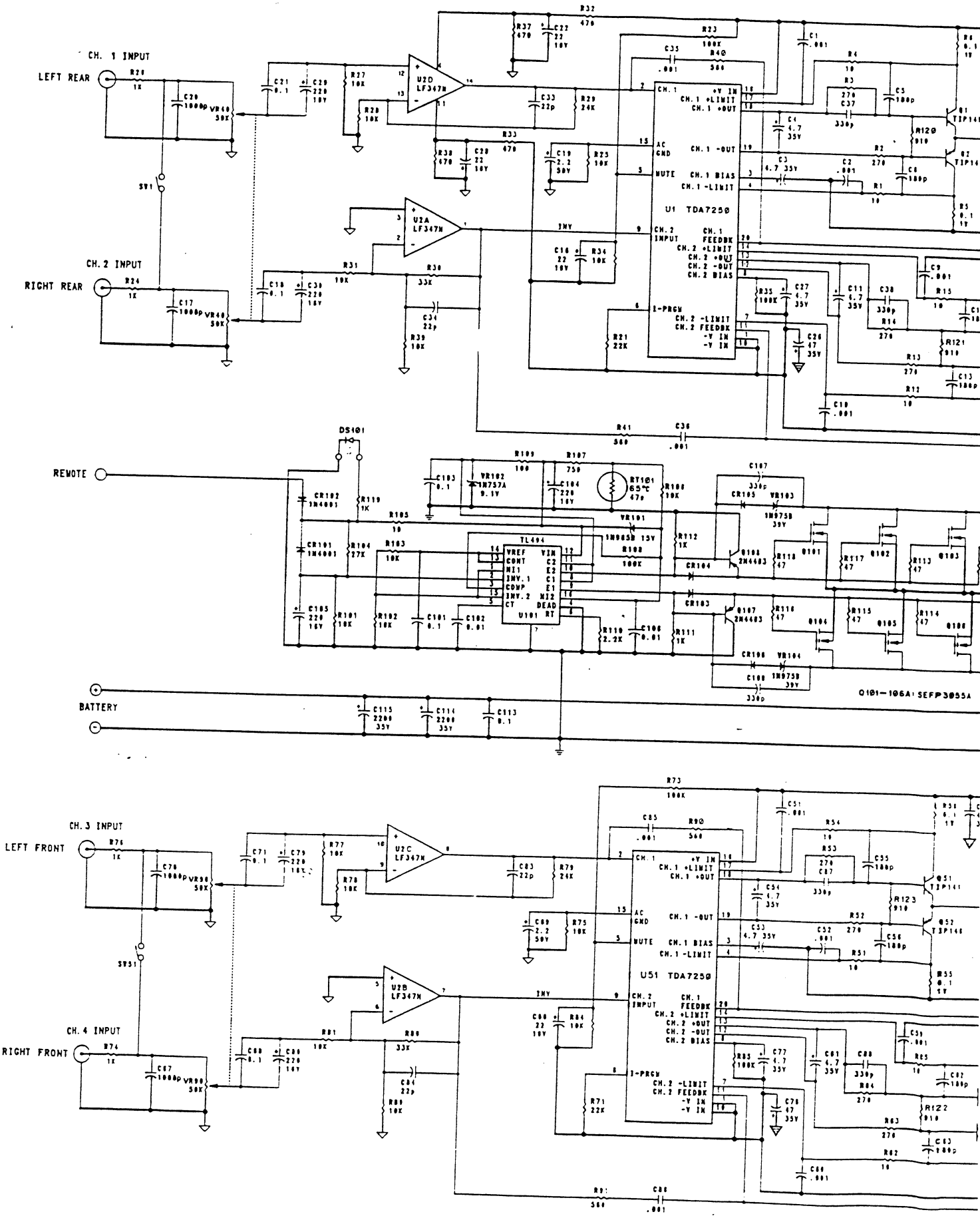


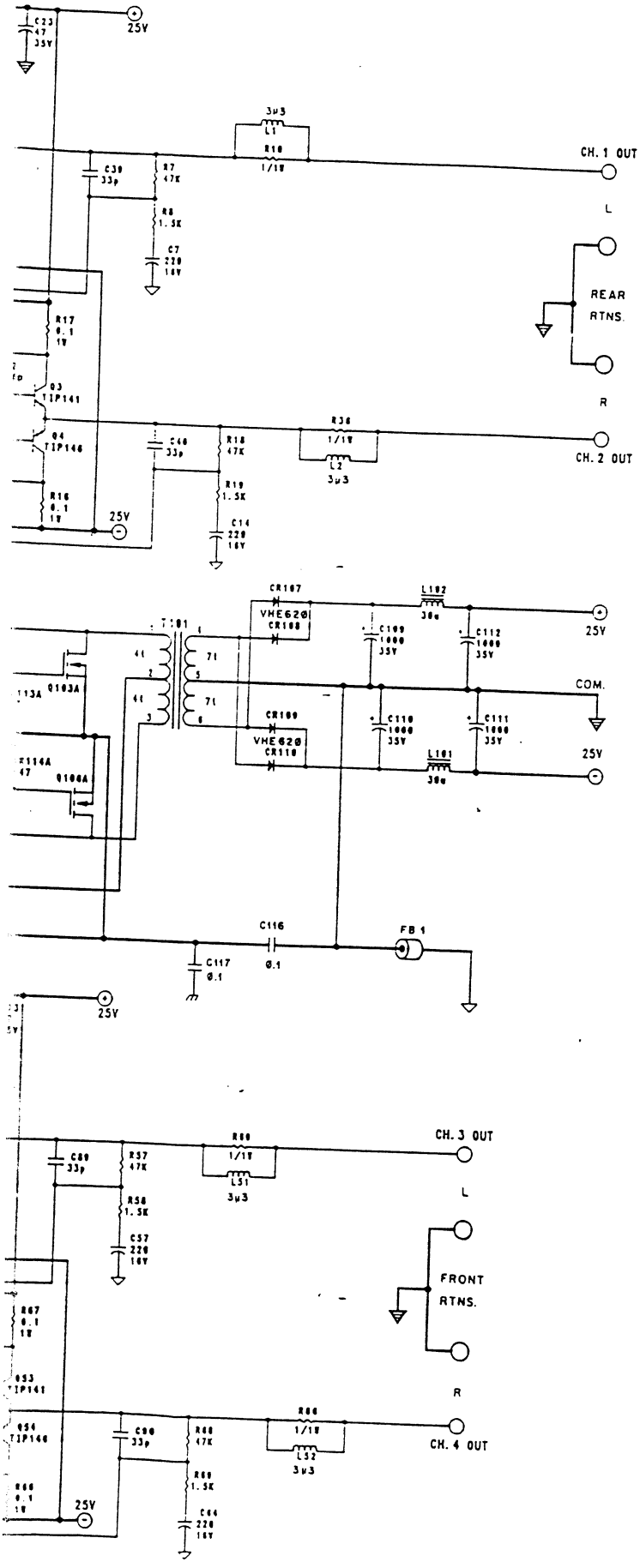
SCHEMATIC DIAG.
CA 200.2


G200·2
LEFT AUDIO
RIGHT AUDIO
REV.C.
PROTECT
BUFFER
MADE IN U.S.A.
S.G
D.G.
36C
35C
35C
35C
36C
35C
36C
35C
36C

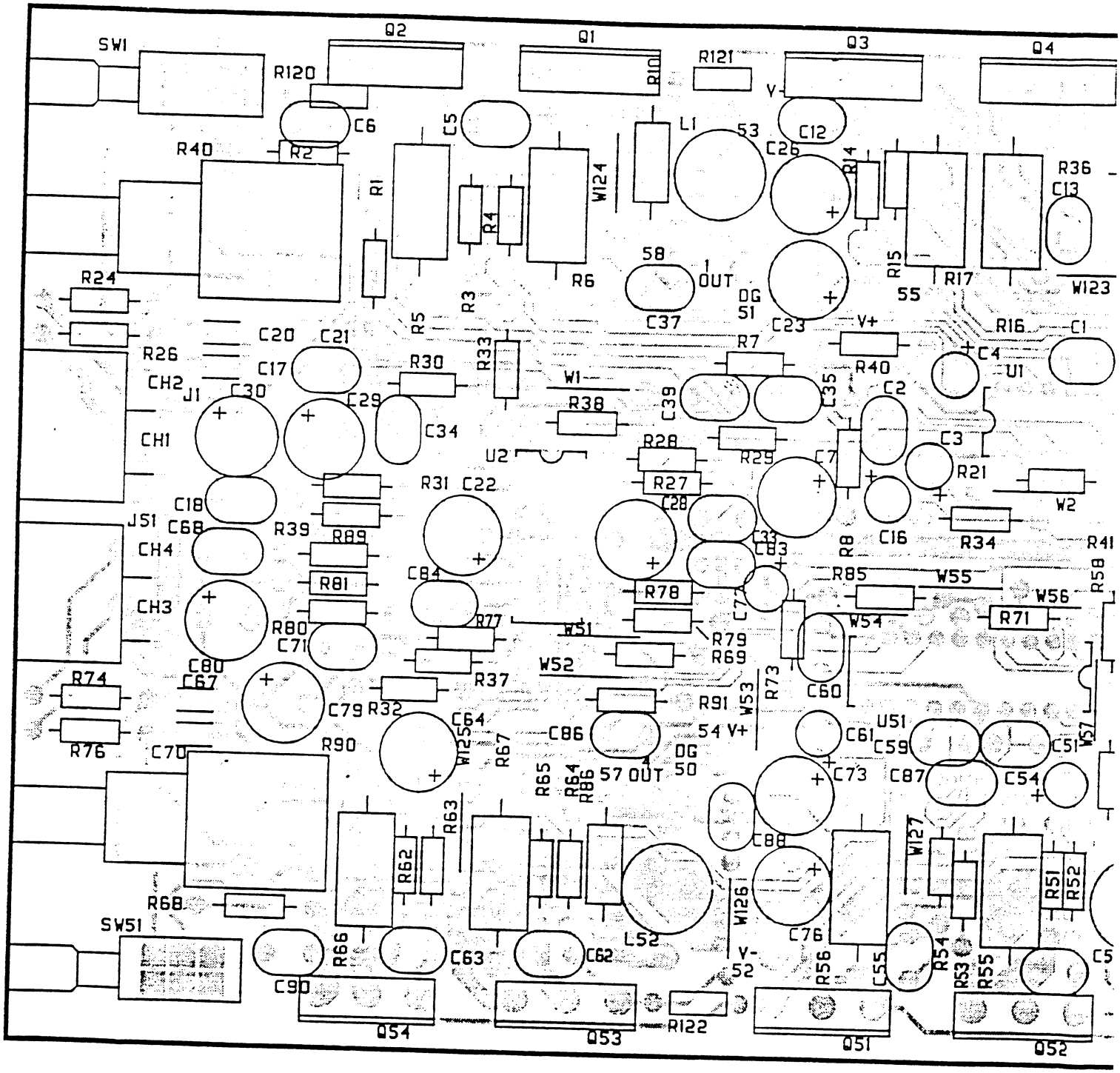


PC BOARD LAYOUT
CA 200.2

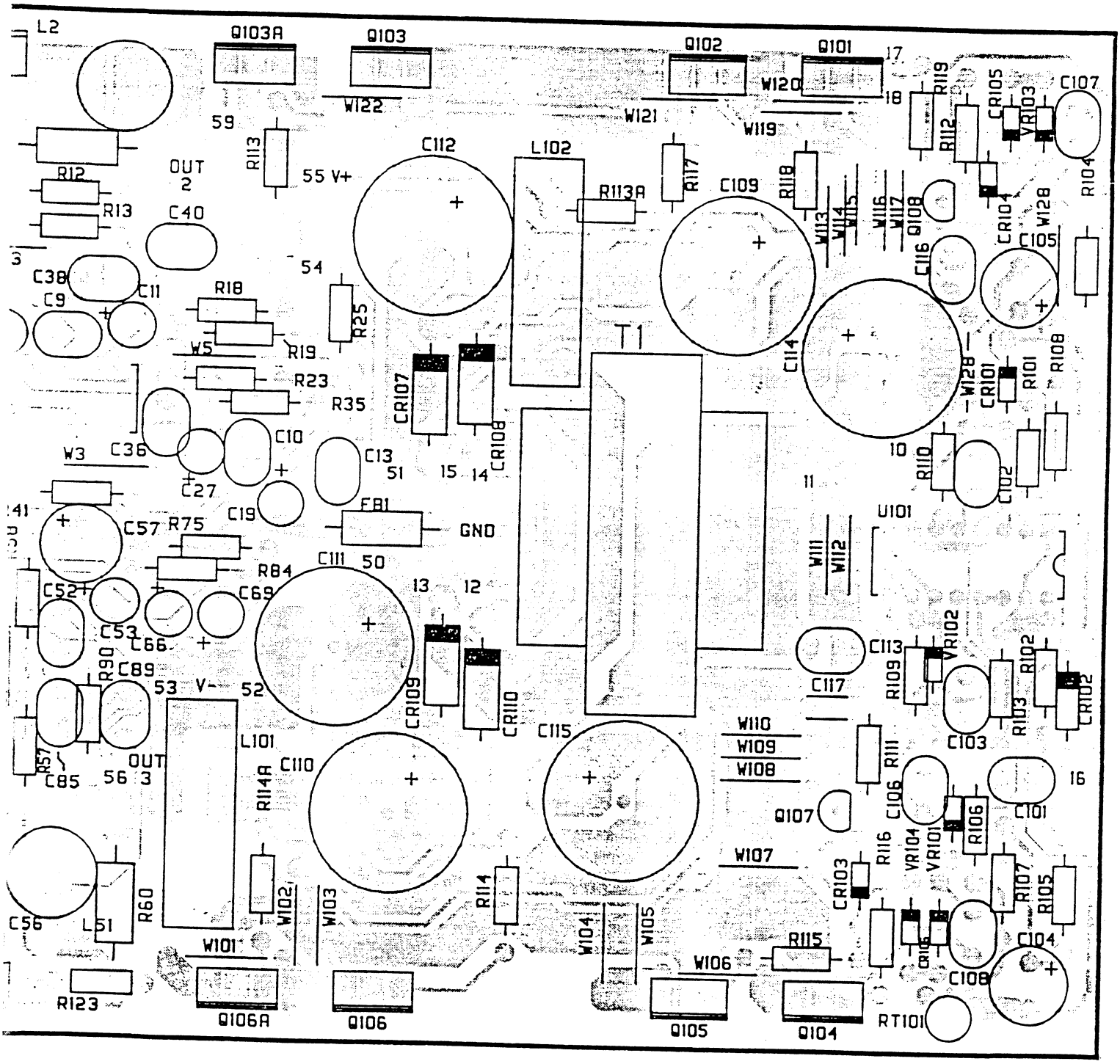

CH. 1 INPUT
LEFT REAR
CH. 2 INPUT
RIGHT REAR
REMOTE
BATTERY
U1 TDA7250
TL494
Q101—106A: SEFP3055A
CH. 3 INPUT
LEFT FRONT
CH. 4 INPUT
RIGHT FRONT
U51 TDA7250



SCHEMATIC DIAG.
CA 30.4



3. a. ALL RESISTANCE VALUES IN OHMS
   b. ALL CAPACITANCE VALUES IN FARADS
   c. ALL VALUES:
      1. MULTIPLIER AT DECIMAL LOCATION, i.e. 3.6K=3K6, .02μ=μ02
      2. $p=10^{-12}$, $n=10^{-9}$, $\mu=10^{-6}$, $m=10^{-3}$, $K=10^{3}$, $M=10^{6}$
2. EQUIVALENT PARTS MAY BE USED.
1. SOLDER PER MIL-STD-454 REQUIREMENT 5



PC BOARD LAYOUT
CA 30.4